ABSTRACT OF THE DISCLOSURE

A continuous speech recognition apparatus which does not require look-ahead of a bigram language model score which is heavy in processing. The continuous speech recognition apparatus comprises a hypothesis storage section for storing hypotheses therein, a hypothesis expansion discrimination section for determining whether or not a hypothesis may be expanded to a succeeding arc, a hypothesis expansion section for expanding a hypothesis and storing a result of the expansion into the hypothesis storage section, a tree structure dictionary storage section for storing a tree structure dictionary and a context preceding to the tree structure dictionary therein, a succeeding word speech part information storage section for storing information of whether or not speech parts are included in all of succeeding words present behind each of arcs in the tree structure dictionary, a speech part connection information storage section for storing connection information between the speech parts, a language model section for providing a language model score to a hypothesis, and an acoustic model section for providing an acoustic model score to a hypothesis. The hypothesis expansion discrimination section prevents a hypothesis from being expanded to an arc to a word which cannot connect linguistically to a context.